

Amend claim 4 as follows:

B7  
m4. (amended) The process according to claim 1,  
wherein the pressure drop comprises a drop of between 2.5 and 200  
bars within 10-60 seconds.m

Amend claim 6 as follows:

B8  
m6. (amended) The process according to claim 4,  
wherein the pressure drop is a drop of between 5 and 200 bars.m

Amend claim 8 as follows:

B9  
m8. (amended) The process according to claim 4,  
wherein the pressure drop takes place at a rate of 0.5 to 5 bars  
per second.m

Add the following new claim:

B10  
m10. (new) The process according to claim 1, wherein  
the blanching step is carried out at a temperature no higher than  
100°C and the partial frying step is carried out at a temperature  
of at least 135°C.m

REMARKS

The application has been amended as needed so as to  
place it in condition for disposal at the time of the next  
Official Action.

In the course of this revision, subject headings have  
been inserted at the appropriate locations throughout the  
specification in a manner consistent with the preferred

guidelines set forth at 37 CFR §1.77 and Section 601 of the Manual of Patent Examining Procedure (MPEP).

Claims 1-9 were rejected under 35 USC §112, second paragraph, for indefiniteness. Specifically, the Primary Examiner kindly suggested amending the expression "to damage" in claim 1, line 18 to read --to physically modify--, in accordance with page 2, line 3 of the original specification. By the present amendment, it will be seen that the Primary Examiner's helpful suggestion has been adopted with thanks.

Claims 1-9 were also rejected under 35 USC §103(a) as being unpatentable over SUGISAWA et al. 4,585,660. The Official Action states that this primary reference discloses steam blanching potato pieces by heating in steam at a temperature of about 100°C and under a raised pressure. A decompression step follows which results in expansion of the potato pieces. Subsequently, the potato pieces are fried resulting in drying of the potato pieces. The fried product is then cooled at room temperature. It is concluded that it would have been obvious that the expansion of the potato pieces results in some physical modification of the potato surface, since the surface skin will be disrupted upon expansion. Finding the optimum pressure drop or decompression parameters as recited in claims 4-9 would require nothing more than routine experimentation by one having reasonable skill in this art.

Reconsideration of the above rejection is respectfully  
requested for the following reasons:

The SUGISAWA et al. reference describes a process having the steps of:

- a) heating the foodstuff at a temperature  $T_1$  at a relatively high pressure;
- b) lowering the pressure;
- c) frying the foodstuff at the same temperature  $T_1$  of step a);
- d) restoring the pressure, etc.

This patented reference also describes the process for a starch-containing foodstuff, Example 6 probably being the closest to the herein claimed invention.

When comparing the two processes, step a) of SUGISAWA et al. would correspond to the present blanching step;

step b) would correspond to the present pressure drop step;

step c) would correspond to the present partial frying step; and

step d) has no corresponding step in the present process.

It follows that the differences between the SUGISAWA et al. process and that of the herein claimed invention are numerous and substantial. Specifically,

*concerning blanching causes gelatinization*

- the heating step a) of SUGISAWA et al. is performed in oil (see column 3, lines 16-19 and all the examples), whereas the present blanching step commonly implies the use of water in order for the required gelatinization and leaching to occur (see page 2, lines 29-31 of the present specification); the heating step a) of SUGISAWA et al. will not necessarily result in gelatinization;

*restoring pressure (step d)*

- restoring the pressure (step d) is performed before the frying step in the present process, whereas it is performed after the (partial) frying step in the SUGISAWA et al. process; *frying always in Sugisawa's*
- no drying step is inserted between the pressure drop and the (partial) frying step of SUGISAWA et al., in contrast to the present process;*

*new step*

- in connection therewith, the foodstuff has a relatively low water content in the pressure step of SUGISAWA et al., as Example 6 thereof shows a water content of 11.5%, whereas a relatively high water content is necessary in the present process in order to allow the pressure drop to result in physically modifying the surface structure; a minimum water content of 35% is specified at page 3, line 20;

*own analysis*

- the high pressure step and the low-pressure frying step are carried out at the same temperature in the SUGISAWA et al. process, whereas the blanching step and the partial frying step of the present invention should have different temperatures in that no effective blanching occurs at a temperature of higher

than 100°C (see page 2, line 30), and no effective frying occurs at a temperature lower than 135°C (see page 3, line 1); step a) according to SUGISAWA et al. is not intended as a blanching step, but rather as a preparation to the later drying (frying) step (see column 4, lines 21-22); and

- the decompression step according to SUGISAWA et al.  
*decompression*  
is not intended to produce physical modification of the surface, and mostly will not produce such modification because of the low water content; rather, it is intended to prepare for the drying/frying step and in some foods, for an expansion of the food (see column 4, lines 22-25).

*why decompress?*  
It follows that there is simply no reason, motivation or suggestion in SUGISAWA et al. to insert a pressure drop step between the blanching and partial frying steps of the process of frying starch-containing foodstuff.

Nevertheless, and in order to advance prosecution of this application, it will be seen that independent claim 1 has been amended so as to recite the feature of the water content of the starch-containing foodstuff at the pressure drop step being at least 35%, as is set forth on page 3, line 20 of the specification. In addition, a new dependent claim 10 has been added which materializes the temperature difference between the blanching step and the partial frying step. Finally, claim 1 restores the pressure drop step as occurring between the blanching and the partial frying step as set forth on page 2,

lines 1 and 2 of the specification, in order to cover any drying between the blanching and the pressure drop. The precise location of the drying step becomes less important after the introduction of the minimum water content in the pressure drop step, and is irrelevant in distinguishing over SUGISAWA et al.

In view of the present amendment and the foregoing remarks, therefore, it is believed that this application has been placed in condition for allowance. Reconsideration and allowance on the basis of claims 1-10 are accordingly earnestly solicited.

In the event that there are any questions relating to this amendment or to the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

Attached hereto is a marked-up version showing the changes made to the specification and claims. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

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VAN EIJCK et al. S.N. 09/699,367

**"VERSION WITH MARKINGS TO SHOW CHANGES MADE"**

**IN THE SPECIFICATION:**

Page 1, the insertion of the Preliminary Amendment of October 30, 2000, has been amended as follows:

--CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation-in-part of copending application Serial No. 09/125,363, filed September 1, 1998, which was the 35 USC 371 national stage of international application PCT/NL97/00067 filed on February 17, 1997.

**FIELD OF THE INVENTION--**

Page 3, the paragraph, beginning on line 4, has been amended as follows:

--The mechanical surface treatment according to the invention results in damaging the surface structure, especially of the surface cells of the gelatinized foodstuff. Such treatments include "external" treatments such as sanding, brushing, rubbing, and the like, but also treatments which induce "damaging from inside", e.g. expansion by forced evaporation, such as sudden pressure drop (steam, air [of] or the like) at high temperatures, or irradiation. The mechanical surface treatment is preferably carried out above 0°C, i.e. without freezing, and does not just consist of a liquid treatment. Preferred temperatures for the mechanical treatment are between 40° and 100°C, preferably between 55° and 90°C. The mechanical

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treatment may be performed using conventional equipment, such as carborundum sanding apparatus or steam peeling apparatus.--

IN THE CLAIMS:

Claim 1 has been amended as follows:

--1. (amended) In a process for producing a fried starch-containing foodstuff, which comprises:

- blanching a starch-containing foodstuff at a temperature greater than 55°C in order to obtain a gelatinized starch-containing foodstuff;

- drying the gelatinized starch-containing foodstuff to obtain a dried foodstuff;

- partially frying the dried foodstuff to obtain a partially fried foodstuff;

- cooling the partially fried foodstuff to obtain a cooled partially dried foodstuff; and

- optionally finish-frying the cooled partially fried foodstuff;

the improvement which comprises:

subjecting the gelatinized starch-containing foodstuff to surface treatment, comprising a pressure drop at elevated temperature, between the blanching and [drying] partially frying steps, said pressure drop being sufficient to [damage] physically modify the surface structure of the gelatinized starch-containing foodstuff and being applied at a water content of the starch-containing foodstuff of at least 35%.--

Claim 4 has been amended as follows:

--4. (amended) The process according to claim 1,  
wherein the pressure drop comprises a drop of between 2.5 and 200  
[bar] bars within 10-60 seconds.--

Claim 6 has been amended as follows:

--6. (amended) The process according to claim 4,  
wherein the pressure drop is a drop of between 5 and 200 [bar]  
bars.--

Claim 8 has been amended as follows:

--8. (amended) The process according to claim 4, wherein  
the pressure drop takes place at a rate of 0.5 to 5 [bar] bars  
per second.--